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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/466,724	12/17/1999	TADASHI WATANABE	0020/K-210(K)	1534

7590 12/17/2003

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EXAMINER

JACKSON, MONIQUE R

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 12/17/2003

107

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/466,724

Applicant(s)

WATANABE ET AL.

Examiner

Monique R Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-13, 15-27 and 29-32 is/are pending in the application.
- 4a) Of the above claim(s) 27, 31 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-13, 15-26, 29 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The amendment filed 10/7/03 has been entered. Claims 14 and 28 have been canceled. Claims 10-13, 15-27, and 29-32 are pending in the application. Claims 27 and 31-32 have been withdrawn.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 10-13, 15-26, and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luch (USPN 4,101,385) in view of Luch (USPN 3,865,699) or Luch (USPN 4,009,093) and in further view of the admitted prior art or Midoguhchi et al (USPN 5,483,012) or Horibe et al (6,231,984).

Luch teaches a process for making a metal plastic structure for use in automobiles such as for use as automobile bumpers utilizing a highly advantageous platable plastic composition comprising in percent by weight about 62% polymer, about 33% carbon black (*an inherently conductive substance*), about 0.7% elemental sulfur, about 0.7% mercaptobenzothiazyl disulfide and about 3% zinc oxide (*inherently conductive*) or other platable plastic composition known in the art, that is melt blended, then sheeted to form sheets having thicknesses in the range of about 100 to 2000 microns, and the thus formed platable plastic sheet is then mechanically applied under heat and pressure with or without a cement (*adhesive*) to a roughened, formed aluminum or aluminum alloy surface in such a fashion that the resultant aluminum-platable plastic is mechanically locked together (*as in instant claims 10-11, 13,15,21-26*), Abstract; Col. 1, lines 5-42; Col. 1, line 64-Col. 2, line 9.) Luch also teaches that the platable (*conductive*) plastic surface

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is then plated with "electrodeposited paint" wherein the platable article acts as a cathode in a plating bath such as in a nickel plating bath in such fashion that voltage is gradually increased until the whole plastic surface is covered with electrodeposited nickel that may further be covered by an electrodeposited layer of chromium or copper or nickel alloys wherein Luch specifically teach an example with a nickel electrodeposited layer of 3 microns followed by a copper electrodeposited layer of about 10 microns and further teaches that the platable composite can be plated according to known methods (*as in instant claims 15, 17 and 19-20*; Col. 1, lines 45-48; Col. 2, lines 10-23; Example.)

Luch does not specifically teach that the platable plastic film has a thickness in the range of 1 to 100 μ m or 3 to 75 μ m, or that the electrodeposited paint film has a thickness of about 10 to about 40 μ m or about 10 to about 20 μ m, however given that thickness is a known result-effective variable affecting the mechanical properties of the resulting composite, it would have been obvious to one having ordinary skill in the art to utilize routine experimentation to determine the optimum thickness of the plastic film as well as the protective plating layer to provide the desired mechanical properties of the composite material taught by Luch for a particular end use.

With regards to the volume specific resistance, though Luch '385 does not specifically teach the volume specific resistance or the surface resistance of the platable plastic compositions, it is well known in the art that conductivity or electrical resistance, measured as volume specific or surface resistance, are known result-effective variables in terms of an electrodeposition process as taught by Luch '385 wherein Luch '699 (Col. 2, lines 22-35; Col. 4, line 16-Col. 5, line 13) and Luch '093 (Col. 2, lines 23-36; Col. 4, line 14-Col. 5, line 11) teach that the plastic composition preferably has a volume resistivity of less than 1000 ohm-cm in order to provide the

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desired electrical properties for electroplating wherein the plated object may be subjected to further electrodeposition in ways well known to those skilled in the art. Hence, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a platable plastic composition having a volume specific resistivity of less than 1000 or 10^3 as taught by Luch '699 or Luch '093 for the invention taught by Luch '385 or to utilize routine experimentation to determine the optimum conductivity or resistivity as measured as volume specific resistance and/or surface resistance, to provide the desired electrical properties for the electrodeposition process taught by Luch '385.

With respect to the electrodeposition paint, though Luch teaches that the platable plastic-metal composite is further coated with an electrodeposited decorative plating layer, Luch does not teach utilizing the electrodeposition paint as instantly claimed. However, the admitted prior art at Page 9, line 18-Page 10, line 12, teach that electrodeposition paints as in claim 18 are known in the art wherein Midogohchi et al, cited at Page 9, line 23 of the instant disclosure, specifically teach the use of a cationic electrodepositable coating composition as instantly claimed to provide improved chip resistance and corrosion resistance to steel automotive panels wherein the thickness of the cationic electrodepositable coating composition is not specifically limited and is in the range of 10 to 50 μm , preferably 15 to 35 μm (Abstract; Col. 2, lines 47-53; Col. 4, lines 18-28; Col. 7, lines 9-54; Col. 8, lines 1-4.) Horibe et al also teach the use of a cationic electrodeposited coating film as instantly claimed as a corrosion resistant component of a multilayer coating film on an automotive part or body such as a fender wherein the coating layer thickness is preferably 10-40 μm , particularly 15-30 μm (Abstract; Col. 1, line 66-Col. 3, line 63.) Hence, it would have been obvious to one having ordinary skill in the art at the time of

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the invention to utilize any cationic electrodepositable coating composition conventionally utilized for coating automotive parts wherein a cationic electrodeposited paint containing a base resin having a hydroxyl group and an amino group which can be converted to a cation with an aliphatic block polyisocyanate compound is taught by Midogohchi et al or Horibe et al to provide improved chip resistance and/or corrosion resistance to the metal automotive substrate taught by Luch '385 in view of Luch '699 or Luch'093.

Response to Arguments

4. Applicant's arguments with respect to claims 10-13, 15-26 and 29-30 have been considered but are moot in view of the new ground(s) of rejection.
5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

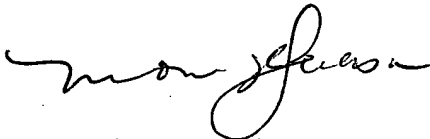
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428.

The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

A handwritten signature in cursive script, appearing to read 'Monique R. Jackson', is positioned above the printed name and title.

Monique R. Jackson
Primary Examiner
Technology Center 1700
December 13, 2003